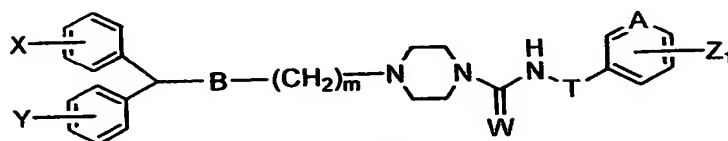
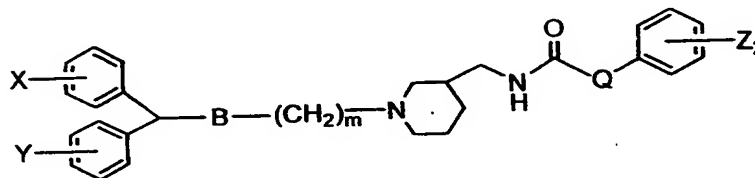


CLAIMS

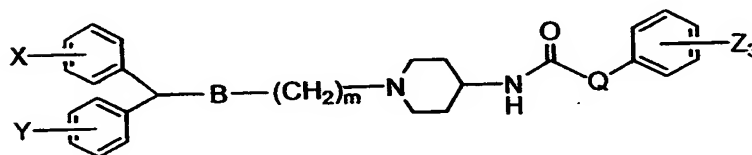
1. A compound having high affinity for a dopamine transporter having a formula selected from the group consisting of:



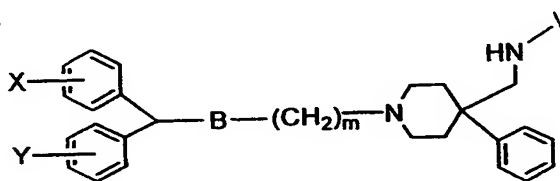
Formula I



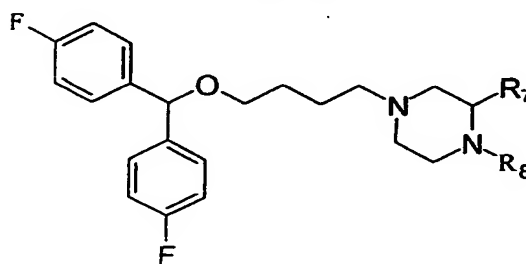
Formula II



Formula III



Formula IV



Formula V

wherein:

n is an integer of 1 to 6; X, Y, Z₁ and Z₂ can be the same or different and are hydrogen, halo, haloalkyl, alkyl, aryl, (C₁-C₆) alkoxy, N-alkyl, (C₂-C₆) acyloxy, N-alkylene, -SH, -SR, wherein R is from the same group as R₁ and R₂ and can be the same or different than R₁ and R₂, amino, nitro, cyano, hydroxy, C(=O)OR₆, -C(=O)NR₅R₄, NR₃R₂, or S(=O)_kR₁ wherein k is 1 or 2, and R₁ to R₆ are independently hydrogen or (C₁-C₆) alkyl;

R₁, and R₂ can be the same or different and are hydrogen, (C₁-C₆) alkyl, hydroxyalkyl or mercaptoalkyl, -C(=O)OR₁, cyano, (C₁-C₆) alkenyl, (C₂-C₆) alkynyl, or 1, 2, 4-oxadiazol-5-yl optionally substituted at the 3-position by Z₄ wherein any (C₁-C₆) alkyl, (C₁-C₆) alkanoyl, (C₂-C₆) alkenyl or (C₂-C₆) alkynyl can optionally be substituted by 1, 2 or 3 Z;

Z₄ is (C₁-C₆) alkyl or phenyl, optionally substituted by 1, 2 or 3 Z₁

R₇ can be hydrogen, O or phenyl

R₈ can be hydrogen, phenyl, halophenyl, nitrophenyl, pyridyl, piperonyl or sulfoxonitrophenyl

W is O or S

T is amino or C₁-C₆ aminoalkyl

A is N or C

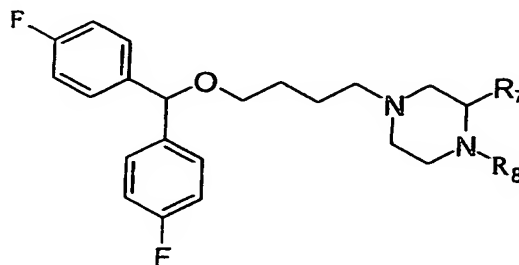
T is C₁-C₆ alkyl or sulfonyl and

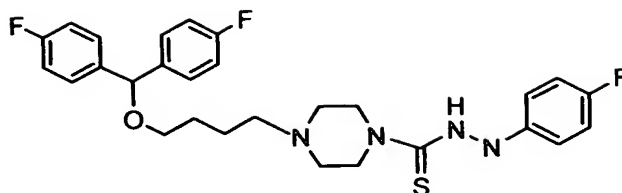
V is alkyl (C₀-C₆), alkenyl, alkynyl, haloaryl, alkyl phenol, alkyl halophenyl, and R₁ or

R₂ as indicated above and

φ is phenyl, naphthyl, thienyl or pyridinyl.

2. The compound of claim 1 selected from the group consisting of:





3. The compound of any one of claims 1, or 2 which is labeled with a radionuclide.
4. The compound of claim 3 wherein said radionuclide is ^{99m}Tc .
5. The compound of claim 3 wherein said radionuclide is an iodine isotope.
6. The method for imaging dopamine neurons in a mammal which comprises:
administering to the mammal an imaging dose of the compound of claim 1 labeled with a radionuclide and detecting binding of the compound in the mammal.
7. The method for imaging dopamine neurons in a mammal which comprises:
administering to the mammal an imaging dose of the compound of claim 2 labeled with a radionuclide and detecting binding of the compound in the mammal.
8. The method of treating an mammal afflicted with cocaine abuse which comprises:
administering to the mammal an effective amount of a compound of claim 1.
9. The method of treating an animal afflicted with cocaine abuse which comprises:
administering to the mammal an effective amount of a compound of claim 2.
10. The method of treating an mammal afflicted with a neurodegenerated disease characterized by a degeneration of dopamine neurons which comprises:
administering to the mammal an effective amount of the compound of claim 1.

11. The method of treating an mammal afflicted with a neurodegenerated disease characterized by a degeneration of seratonin neurons which comprises:
administering to the mammal an effective amount of the compound of claim 1.

12. The method of treating a mammal afflicted with a neurodegenerated disease characterized by a degeneration of dopamine neurons which comprises:
administering to the mammal an effective amount of the compound of claim 2.

13. The method of treating a mammal afflicted with a neurodegenerated disease characterized by a degeneration of seratonin neurons which comprises:
administering to the mammal an effective amount of the compound of claim 2.